

IN THE SPECIFICATION

Please amend the specification as follows:

Replace the paragraph on page 4, between lines 4-15 of the specification with the following:

In a preferred embodiment of this invention, a truly random sequence is used as the transmitted sequence. Any of a number of existing techniques may be used to provide a truly random sequence. U.S. patent 4,853,884, "RANDOM NUMBER GENERATOR WITH DIGITAL FEEDBACK", issued 1 August 1989 to Brown et al, discloses a technique for generating a random number by reverse biasing an a zener diode, and controlling the reverse bias to assure an approximate equal proportion of zeros and ones produced, and is incorporated by reference herein. U.S. patent 5,781,458, "METHOD AND APPARATUS FOR GENERATING TRULY RANDOM NUMBERS", issued 14 July 1998 to Gilley, discloses an RC oscillating circuit, wherein a random sequence is generated based on a comparison of the periods of two sequential cycles, and is incorporated by reference herein. These and other techniques for generating a random sequence of bits based on random physical phenomena are common in the art.

Replace the paragraph on page 5, between lines 14-23 of the specification with the following:

FIG. 2 illustrates an example comparison of a received sequence 231 (from the storage 230 in the receiver ~~100~~200 of FIG. 1) to a transmitted sequence 131 (from the storage 130 of the transmitter ~~200~~100 of FIG. 1) in a time verification system in accordance with this invention. Assuming that the bits in the sequence are transmitted at regular time intervals, the duration of time that the receiving system 200 was in the vicinity of the transmitting system 100 is determined by the length 290 of the received sequence 231. To determine the time corresponding to the transmission of the received sequence 231, and to verify that the particular sequence 231 was transmitted by the transmitting system 100, the received sequence 231 is shifted relative to the transmitted sequence 131 until there is a one-to-one correspondence between the sequences 231, 131, as illustrated by the dashed sequence 231' in FIG. 2.

Replace the paragraph on page 8, between lines 1-19 of the specification with the following:

Note that in a preferred embodiment of this invention, the bit rate of the transmitted sequence is relatively slow, thereby

allowing for a very simple embodiment of the transmitting system 100 and the receiving system 200 of FIG. 1. In a straightforward embodiment, the transmitter 110 may be configured to transmit a continuous signal when the random bit is a one, and to not transmit when the random bit is a zero. Alternatively, the transmitter 110 may transmit at a first frequency when the bit is a one, and at a second frequency when the bit is a zero. These simple transmission schemes allows for a simple embodiment of a receiving system 200, the receiver merely being tuned to the appropriate frequency band, and the detector merely being a frequency-sensitive device. A relatively slow clock may be employed to sample the output of the detector to determine the value that is to be stored in the storage 230. Any of a variety of encoding schemes may be employed at the transmitter 110 to facilitate a relative synchronization of the transmitter bit period to the receiver bit period, such as the transmission of a pilot tone at the start of each new bit, the use of a return-to-zero (RZ) bit encoding scheme, or others. The relatively simple encoding scheme also allows for a variety of transmission schemes, including infrared and other low-cost transmitters and receivers. The use of an infrared transmission is particularly well suited for multi-beacon environments, such as shopping malls, due to the generally limited range of an infrared

transmission. Conversely, relatively low-frequency RF transmissions, or high-frequency sonic transmissions, would be particularly well suited for large area environments, such as arenas and amusement parks. Accordingly, the modulation may be at a relatively low frequency relative to the carrier frequency of the transmitted signal that is received by the receiver.